

REMARKS

The foregoing amendment is responsive to the Office Action mailed on January 16, 2003 (hereinafter "the Office Action"). Applicants' representative would like to initially thank Examiner Zurita for the courtesy extended during the telephone interview conducted on March 4, 2003.

In the Office Action, the Examiner rejected specific claims as being indefinite under section 112, second paragraph. In addition, the Examiner rejected all of the pending claims as being unpatentable under section 103(a) over the combination of U.S. Patent Nos. 6,321,221 ("Bieganski"), 6,269,369 ("Robinson I"), and 5,790,426 ("Robinson II"). These references will be collectively referred to as the "applied references." Applicants will treat the applied references as prior art for purposes of responding to the Office Action, but reserve the right to later show that one or more of these references is/are not prior art.

For the reasons set forth below, Applicants request that the Examiner withdraw the rejections.

I. Summary of the amendments

The amendments made herein to the independent claims, and to dependent Claim 27, are identical to those sent to the Examiner and discussed during the telephone interview. Applicants have also amended some of the other dependent claims to provide consistency with the amendments to the independent claims. No new matter has been added.

II. Indefiniteness rejections

The Examiner rejected Claims 27-29 and 51 as being indefinite under section 112, second paragraph. According to the Examiner, it is not clear which portion of an email address the term "domain" refers to in these claims. In response to this rejection, Applicants have amended Claims 27, 28 and 29 to replace "email domain" with "domain name." As will be apparent from the examples provided in the specification, the term "domain name," as used in these claims, refers to the portion of an email address falling to the right of the "@" sign. For example, for the email address tom@nasa.gov, the domain name would be "nasa.gov." This meaning is consistent with following definition provided by Webopedia.com:

Domain Name: A name that identifies one or more IP addresses. For example, the domain name *microsoft.com* represents about a dozen IP addresses. Domain names are used in URLs to identify particular Web pages. For example, in the URL *http://www.pcwebopedia.com/index.html*, the domain name is *pcwebopedia.com*.

Because Claim 51 already uses the term “domain name,” no amendments to Claim 51 are believed necessary to overcome the indefiniteness rejection.

The Examiner also rejected a number of claims on the basis that the claim terms “popular,” “more popular,” “popularity,” and “relatively popular” are relative terms that render the corresponding claims indefinite. As discussed during the interview, the amendments made herein are believed to overcome this rejection. In this regard, the term “popularity level,” as added to some of the claims, is not a relative term. Although the term “popular” remains in some of the claims, the term is used in a context that does not create an indefiniteness issue.

III. Discussion of Applied References

As discussed during the telephone interview, the applied references fail to disclose or suggest many of the important aspects and features disclosed in the present application. Examples of these distinguishing features are summarized below.

1. Notifying users of communities in which specific items are popular

None of the applied references suggests notifying users of the communities in which specific items are popular, or of otherwise notifying users of relationships between specific items and communities. As disclosed in the present application, this information can be very important to potential purchasers of such items. For example, a user may be more inclined to purchase a particular computer programming book if he is informed that the book is currently very popular among users in the *microsoft.com* domain. Similarly, a user may be more inclined to purchase a book about a particular travel destination if he knows the book is particularly popular among residents of that travel destination. As discussed below, all of the independent claims of the present application now include limitations relating to this feature.

The Examiner relies primarily on Bieganski in taking the position that this aspect of the invention is obvious. Bieganski discloses a collaborative recommendations process in which users having similar profiles are grouped together into “affinity groups” (also called “neighborhoods”) for purposes of generating personalized recommendations. For example, all users that share at least two common items within their respective purchase histories may be grouped together to form a

particular affinity group. If a particular item appears frequently within the purchase histories of the members of this affinity group, that item may be recommended to those members who have not yet purchased the item. To increase the likelihood that the recommendations will be useful, items that are generally popular are not recommended.

In contrast to Applicants' preferred embodiments, Bieganski's recommendation process does not notify the target user of a particular community in which the recommended item is popular. Rather, the item is merely suggested to the user without an explanation as to why it is being recommended. In this regard, there would be little or no reason in Bieganski to identify the particular affinity group to the target user, as these affinity groups are not tied to specific companies, organizations, clubs or geographic regions that would be meaningful to the target user. Yet another deficiency in Bieganski's method is that it is apparently incapable of providing meaningful information to a user who does not yet have an interests profile (e.g., has not yet made any purchases).

2. Identifying items that distinguish a community from a general user population

The applied references also fail to suggest a process for identifying those items that distinguish the particular community from a general user population (e.g., as the result of the items being much more popular within the community than within the general user population). In connection with this feature, which is recited in some of Applicants' independent claims (as discussed below), the Examiner again relies on Bieganski. Office Action at page 5, lines 4-8. Bieganski does not, however, disclose or suggest this feature. Rather, as discussed above, Bieganski uses item popularity data to inhibit recommendations of items that are generally popular. This is done without seeking to identify those items that distinguish a selected community from a general user population.

The Examiner also relies in-part on the disclosure of certain statistical tools and probability distributions in Robinson II. Office Action at page 6, last six lines. These statistical tools and probability distributions apparently do not, however, seek to identify items that are disproportionately popular within, or which otherwise distinguish, specific communities.

3. Use of user email and shipping addresses to define implicit membership communities

The applied references also fail to suggest using either user email addresses, or user shipping addresses, as a basis for grouping users together into "implicit membership" communities. In

connection with these features, the Examiner relies on Robinson I, pointing out that the contact management system of Robinson I stores geographic data for users. Office Action at last paragraph of page 7. Robinson I does not, however, suggest using such geographic data for the purpose of defining or forming user communities. Rather, the geographic data—which includes travel plans of specific users—is used to detect, and notify users of, “crossing paths” events in which two users will be in the same place at the same time. In addition, Robinson I is not directed to the problem of assisting users in making selections of items from an electronic catalog.

IV. Discussion of Claims

In order to establish prima facie obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. See MPEP § 2143.03. As set forth below, the applied references fail to satisfy this requirement with respect to each of the independent claims, as amended herein. Additional patentable distinctions are recited throughout the dependent claims.

Claim 1

With respect to Claim 1, the applied references do not disclose or suggest “processing at least the purchase history data to identify at least one item which, based on actions of both members and non-members of a selected community of said plurality of user communities, has a popularity level that is substantially greater within the selected community than outside the selected community.” As discussed above, Robinson II does not suggest this aspect of the invention by disclosing the use of statistical tools. Although Bieganski’s recommendation process uses item popularity data to inhibit recommendations of the most popular items, the process does not seek to identify those items that have substantially higher popularity levels within a selected community than outside that community.

The applied references also fail to disclose or suggest “electronically notifying users that the at least one item is popular within the selected community to assist users in selecting items from the electronic catalog.” As discussed above, Bieganski recommends items to users without providing the users with such data.

Claim 12

With respect to Claim 12, the applied references do not disclose or suggest “a computer process which analyzes at least the purchase history data to identify items that have substantially

higher popularity levels within particular communities of the plurality of communities relative to their respective popularity levels among a general user population.” In addition, the applied references do not disclose or suggest a computer process that notifies users “of the items and associated communities for which such popularity level disparities exist, to thereby assist such users in selecting items from the electronic catalog.”

Claim 26

With respect to Claim 26, the applied references do not disclose or suggest the following combination of steps:

identifying a subset of users of the store that have email addresses that satisfy a particular criteria, wherein the subset comprises a plurality of users, and

identifying at least one item that characterizes the subset of users, wherein the step of identifying comprises processing purchase history data of the subset of users and of users falling outside said subset.

As discussed above, Bieganski groups together those users who have similar interest or purchase profiles, without regard to the email addresses of these users. Robinson II’s use of geographic data to detect crossing paths events does not provide a suggestion to use email addresses as a basis for forming communities in the context of the other claim limitations.

The applied references also fail to disclose or suggest “electronically notifying users ... of a relationship between the at least one item and the subset of users, to assist users in selecting items from the electronic catalog.”

Claim 32

With respect to Claim 32, the applied references do not disclose or suggest “processing the activity history data of the general population of users, including the subset of users, to identify a set of items that distinguish the subset from the general population,” in the context of the other claim limitations. In addition, the applied references do not disclose or suggest “notifying users of the catalog of a relationship between the set of items and the subset of users, to thereby assist the users of the catalog in selecting items therefrom.”

Claim 43

With respect to Claim 43, the applied references do not disclose or suggest the following combination of limitations:

identifying, among a population of users of the electronic catalog, a subset of users that, based on user shipping addresses, reside in a common geographic region;

monitoring actions of the subset of users, and of users falling outside the subset, to generate user activity history data reflective of user actions performed with respect to items in the electronic catalog; and

processing the user activity history data to identify an item whose popularity level among the subset of users is substantially higher than a popularity level of the item among the population of users.

In addition, the applied references do not disclose or suggest “notifying at least one user that a relationship exists between the item and the geographic region to assist the at least one user in selecting items from the electronic catalog.”

Claim 51

With respect to Claim 51, the applied references do not disclose or suggest “for each of a plurality of organizations, identifying a respective group of said users who are deemed to be affiliated with the respective organization by virtue of a domain name of the respective organization occurring within an email address of each such user, to thereby identify a plurality of organization-specific groups of users.”

In addition, the applied references do not suggest “for each organization-specific group of users, analyzing the activity history data to generate a list of items within the electronic catalog that distinguish the organization-specific group from a general population of the users, to thereby generate a plurality of organization-specific popular items lists.”

Further, the applied references do not disclose or suggest “exposing the organization-specific popular items lists to the users of the electronic catalog in association with the organizations to which such popular items lists correspond, to allow users to identify items that are popular within specific organizations.”

V. Conclusion

Because each independent claim recites at least one limitation that is not disclosed or suggested by the applied references, the obviousness rejection is improper. Applicants also respectfully submit that the rejection is improper because the Examiner has failed to identify a legally sufficient suggestion to combine Bieganski, Robinson I, and Robinson II.

If any issues remain which can potentially be resolved by telephone, the Examiner is invited to call the undersigned attorney of record at his direct dial number listed below.

Respectfully submitted,

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